AMENDMENTS TO THE CLAIMS

Please replace all prior versions and listings of claims with the following listing of claims.

1. (***Currently Amended***) A mixture injection port comprising:

a channel tube unit including a body portion that is provided with an inner cavity and a leg portion that is provided with a narrow tube portion having a smaller width than that of the inner cavity;

a septum covering one end of the channel tube unit and having a slit into which a tube member is inserted; and

a circulating member provided in the channel tube unit below the septum, the circulating member being separate from the channel tube unit and comprising:

a plate portion arranged to change direction of flow of a first fluid injected from the inserted tube member or a second fluid flowing from the other end of the channel tube unit; and

an edge portion that protrudes upwardly towards the septum from a periphery of the plate portion and is arranged along an inner wall of the channel tube unit,

wherein the circulating member is positioned such that a tip of the edge portion faces a gap region between the inner wall of the channel tube unit and the septum deformed by the insertion of the tube member,

wherein the circulating member is configured to: circulate the first fluid injected from the inserted tube member to [[a]] the gap region ~~between the inner wall of the channel tube unit and the septum deformed by the insertion of the tube member~~ such that at least a portion of a surface of the septum is in contact with at least a portion of the circulating first fluid redirected by the circulating plate portion to substantially flush away any stagnant matter present on said surface of the septum and then guide the first fluid to the other end of the channel tube unit, and/or circulate the second fluid flowing from the other end of the channel

tube unit to the gap region and then guide the second fluid to a top portion of the inserted tube member,

wherein an axial position of the circulating member in the channel tube unit is substantially restricted when the tube member is inserted into or pulled out of the slit; and

wherein an annular protrusion is formed on the inner cavity of the channel tube such that the plate portion of the circulating member is engaged between the annular protrusion and a step formed between the inner cavity and the narrow tube portion such that an axial position of the circulating member in the channel tube unit is substantially restricted when the tube member is inserted into or pulled out of the slit.

2. (***Currently Amended***) The mixture injection port according to claim 1,

~~wherein the body portion includes an opening that is covered by the septum and the inner cavity is deformed by the insertion of the tube member so as to accommodate the septum; and~~

wherein the narrow tube portion is configured to provide communication between the inner cavity and the other end of the channel tube.

3. (***Previously Presented***) The mixture injection port according to claim 2,

wherein a groove is formed on a surface on the inner cavity side of the plate portion of the circulating member, the groove extending in a direction different from a direction from which the first fluid is injected from the inserted tube member, and wherein the first fluid is allowed to flow along the groove so that the direction of flow of the first fluid is changed.

4. (***Previously Presented***) The mixture injection port according to claim 2,

wherein the plate portion of the circulating member is provided with a holding portion on its back face that is engaged with the narrow tube portion and holds the circulating member inside the channel tube.

5. (***Previously Presented***) The mixture injection port according to claim 4,

wherein a groove for guiding the first fluid or the second fluid is formed in the back face of the plate portion and the holding portion.

6. (***Cancelled***)

7. (***Previously Presented***) The mixture injection port according to claim 1,

wherein a groove for guiding the first fluid or the second fluid is formed on an inner circumferential surface and an outer circumferential surface of the edge portion.

8. (***Withdrawn***) The mixture injection port according to claim 1, further comprising:

a fluid-stagnation-preventing portion provided for filling the gap region generated between the inner wall of an inner cavity formed inside the channel tube and the septum that is deformed to the inner cavity side by insertion of the tube member, when the tube member is inserted into the slit.

9. (***Withdrawn***) The mixture injection port according to claim 8,

wherein the fluid-stagnation-preventing portion is formed integrally with the septum.

10. (***Withdrawn***) The mixture injection port according to claim 9,

wherein the fluid-stagnation-preventing portion is a rib provided such that at least one portion of its outer circumference and its top is in contact with the inner wall throughout its entire circumference.

11. (***Withdrawn***) The mixture injection port according to claim 8,

wherein the fluid-stagnation-preventing portion is provided so as to protrude from the inner wall and be in contact with the septum.

12-14. (***Cancelled***)

15. (***Currently Amended***) A mixture injection port comprising:

a channel tube unit including a body portion that is provided with an inner cavity and a leg portion that is provided with a narrow tube portion having a smaller width than that of the inner cavity;

a septum covering one end of the channel tube unit and having a slit into which a tube member is inserted; and

a circulating member provided in an inner cavity of the channel tube unit below the septum, the circulating member being separate from the channel tube unit and comprising:

a plate portion arranged to change direction of flow of a first fluid injected from the inserted tube member or a second fluid flowing from the other end of the channel tube unit ~~towards an edge portion of the circulating member~~; and

[[the]] an edge portion that protrudes upwardly towards the septum from a periphery of the plate portion and is arranged along an inner wall of the channel tube unit,

wherein the circulating member is positioned such that a tip of the edge portion faces a gap region between the inner wall of the channel tube unit and the septum deformed by the insertion of the tube member,

wherein the edge portion is ~~arranged~~ configured to further change the direction of flow of the first fluid or the second fluid towards the gap region ~~septum side~~ such that at least a portion of a surface of the septum is in contact with at least a portion of the circulating first fluid redirected by the circulating plate portion to substantially flush away any stagnant matter present on said surface of the septum, and

wherein an axial position of the circulating member in the channel tube unit is substantially restricted when the tube member is inserted into or pulled out of the slit, the circulating member is positioned at a step formed between the inner cavity and the narrow tube portion.

16. (***Previously Presented***) The mixture injection port according to claim 15,

wherein a first groove is formed on a surface of the plate portion of the circulating member and the first fluid flows along the first groove towards the edge portion; and

a second groove is formed on a surface of the edge portion of the circulating member and the first fluid flows along the second groove towards the septum side.

17. (***Withdrawn – Previously Presented***) The mixture injection port according to claim 15, wherein

the channel tube unit forming a fluid channel in which an inner cavity and the narrow tube portion having a smaller width than that of the inner cavity are in communication with each other;

the septum covers an opening on the inner cavity side of the channel tube unit;

the plate portion of the circulating member is mounted on the step between the inner cavity and the narrow tube portion; and

the annular rib is provided such that its outer circumference side or its top is in contact with an inner wall of the inner cavity is provided in the septum on the inner cavity side by integral formation with the septum,

and further comprising: a cap for fixing the septum to the channel tube unit.

18. (***Withdrawn***) The mixture injection port according to claim 17,

wherein the plate portion of the circulating member is a substantially disk-shaped plate member, and its diameter is substantially equal to the inner diameter of the inner cavity.

19. (***Withdrawn***) The mixture injection port according to claim 17,

wherein a protrusion is formed on a surface of the slit on the inner cavity side in the septum.

20. (***Cancelled***)

21. (***Currently Amended***) A method for transferring a fluid to or from a body through a mixture injection port, the mixture injection port comprising a channel tube unit including a body portion that is provided with an inner cavity and a leg portion that is provided with a narrow tube portion having a smaller width than that of the inner cavity and a septum covering one end of the channel tube unit and having a slit, the method comprising:

inserting a tube member into the slit;

injecting a first fluid into the tube member or a second fluid into an other end of the channel tube unit;

circulating, via a circulating member provided in the channel tube unit below the septum, the first fluid or the second fluid towards the septum side; and

guiding, via the circulating member, the first fluid to the other end of the channel tube unit or the second fluid to a top portion of the tube member,

wherein the circulating member is positioned such that a tip of the edge portion faces a gap region between the inner wall of the channel tube unit and the septum deformed by the insertion of the tube member,

wherein the circulating member is separate from the channel tube unit and comprises a plate portion arranged to change direction of flow of the first fluid or the second fluid, and an edge portion that protrudes upwardly towards the septum from a periphery of the plate portion and is arranged along an inner wall of the channel tube unit, wherein the circulating member is positioned such that a tip of the edge portion faces a gap region between the inner wall of the channel tube unit and the septum deformed by the insertion of the tube member, wherein the edge portion is configured to change the direction of flow of the first fluid or the second fluid towards the gap region such that at least a portion of a surface of the septum is in contact with at least a portion of the circulating first fluid redirected by the circulating plate portion to substantially flush away any stagnant matter present on said surface of the septum, and

wherein an axial position of the circulating member in the channel tube unit is substantially restricted when the tube member is inserted into or pulled out of the slit, the circulating member is positioned at a step formed between the inner cavity and the narrow tube portion.

22. (***Previously Presented***) The method of claim 21, further comprising:

after injecting the first fluid into the tube member or the second fluid into an other end of the channel tube unit, directing, via the circulating member, the first fluid or the second fluid radially outwardly and toward an intersection between the septum and a wall defining an inner cavity of the mixture injection port,

wherein guiding the first fluid to the other end of the channel tube unit or the second fluid to the top portion of the tube member comprises guiding the first fluid radially inwardly towards the other end of the channel tube unit or guiding the second fluid radially inwardly towards the top portion of the tube member.

23–27. (***Cancelled***)